



Tribal Delegation Meeting

Hopi Tribe

January 17, 2013



ISSUE:

The Hopi Arsenic Mitigation Project (HAMP) is a large scale drinking water project conceived with the goal of providing a long-term sustainable solution to arsenic compliance issues in the First and Second Mesa region of the Hopi Reservation. The primary issues surrounding this project are arsenic health effects, village autonomy, water rights, exclusion of villages with arsenic compliant drinking water (i.e. Third Mesa villages), high capital construction cost (funding) and increased future operations & maintenance costs.

Background:

Revised in January 2001, EPA reduced the maximum contaminant level (MCL) for arsenic in drinking water from 50 ppb to 10 ppb. Effective January 2006, all public water systems were required to meet this revised standard. Since 2006 all public water systems in the First and Second Mesa areas of the Hopi Reservation have been out of compliance with regard to arsenic.

Current Situation:

The Hopi Water Resources Program, EPA and IHS, with support from the villages, are all actively engaged in advancing the HAMP. EPA is actively funding the project within the DWTSA grant program funding limitations. It is also worth noting that EPA has recently intensified their compliance and enforcement efforts on tribal lands.

Bureau of Indian Affairs (BIA) facilities in the vicinity of the project are facing EPA enforcement actions for arsenic non-compliance. BIA recently conducted their own arsenic feasibility study from which they identified connecting the affected BIA systems to the HAMP as the preferred alternative. IHS has provided to tribal representatives the current pro rata cost share of the infrastructure for BIA. The pro rata cost share only includes the cost of the HAMP infrastructure. In order for the BIA systems to connect to the Hopi village water systems using HAMP water, there will need to be additional water infrastructure installed at additional cost to BIA. The commitment level of BIA to connect to Hopi water systems and contribute to the HAMP infrastructure costs is not clear.

The Tribe has submitted a pre-application for funding to USDA-Rural Development (USDA-RD) indicating their desire to pursue funding for the HAMP through USDA-RD's Water and Environmental Program. The application requires that the PER final draft be completed along with the Environmental Assessment.

The HAMP is currently in the final planning stage. The following is a list of current and ongoing project related activities and status.

- Public Outreach & Education (Ongoing) by Hopi Tribe and IHS. Multiple public meetings on the Preliminary Engineering Report, Environmental Assessment, and Water System Strategic Plan were held in 2012 in which tribal and village leaders were specifically invited to attend. Subsequent meetings with First Mesa Consolidated Villages, Shungopavi, and Sipaulovi were held in October, 2012 in response to comments provided by those villages.
- Funding Acquisition (Ongoing) by Hopi Tribe with consultation from IHS.
- Hydrogeologic Study (Complete) – A comprehensive study to confirm the proposed water source will serve as a long-term sustainable solution. This study also includes engineering recommendations for the best approach to developing the water source. Completed by Kennedy/Jenks Consultants.
- Well Drilling – The contract for well drilling was bid on December 4, 2012 and a notice to proceed is anticipated to be issued by the tribe in February, 2013. The results of the well drilling are critical to verify the determination of the hydrogeologic study, that there is enough arsenic compliant water available north of First and Second Mesas confirming that the HAMP is a viable project. The wells also require a power extension from either the Navajo Tribal Utility Authority (NTUA) or APS. The NTUA power extension is closer to the wells than the APS connection. IHS has been working with a proposed

community development, known as Tawa'ovi, near the well locations to share some of the costs for the power extension and jointly apply for HUD funding. IHS and the Tawa'ovi community representative met with NTUA to discuss the power extension on January 16, 2012. NTUA stated that they should have enough power capacity to serve the wells, but infrastructure improvements would be necessary for additional power usage. Those infrastructure improvements could result in additional, unanticipated costs to both the HAMP and the Tawa'ovi community. NTUA requested that the Tawa'ovi team provide their usage schedule by year for power in order to provide a cost estimate to both IHS and the Tawa'ovi community. The HUD funding application is due on March 18, 2013.

- Water System Strategic Plan (90% Complete) – A comprehensive plan defining how the proposed water system will be operated and managed. Generally speaking the plan will provide a roadmap demonstrating how to establish a new self-sustaining tribal water utility authority. The results of the plan will also include insight into the future operating costs of the proposed HAMP. The scope of this plan also is to aid the tribe in the development of a “Hopi Utility Authority.” On October 9, 2012, IHS provided to the Hopi Tribal Council a memorandum requesting the tribe's direction on several outstanding issues. At that meeting, the Tribal Council committed to address those issues and to send a response to IHS. IHS has contracted GHD, an engineering consulting firm to complete the Utility Management Plan.
- Environmental Assessment/NEPA – The Environmental Assessment (EA) draft has been prepared by Bohannon Huston and Marron and Associates as consultants to IHS. The EA is ready to send out for cooperating agency review pending the completion of the cultural report. The cultural report is being completed by the Hopi Cultural Preservation Office.
- Preliminary Engineering Report (90% Complete) prepared in USDA-RD format by IHS. The final draft of the PER is contingent upon the completion of the Environmental Assessment and the Water System Strategic Plan.

Action Plan:

IHS is committed to assisting the Hopi Tribe address their arsenic compliance issues by continuing to provide engineering and technical support. The current total project cost estimate is approximately \$20 million which exceeds IHS Division of Sanitation Facilities Construction funding capabilities. With the exception of the large capital cost, the HAMP ranks high on the IHS Sanitation Deficiency System (SDS) and IHS will likely contribute a portion of future construction funding. It appears, however that the project will be multi-agency funded. Potential funding sources include Hopi Tribe, IHS, EPA, BIA, HUD and most notably USDA-RD. Barring a direct congressional appropriation, the Tribe may be faced with financing a portion of the project.

The following are the next steps to completing the project.

1. Complete the various preliminary engineering and planning tasks funded through the EPA DWTSA grant program including the Water System Strategic Plan, well drilling, the Environmental Assessment, and the Preliminary Engineering Report.
2. Acquire complete design and construction funding.
3. Construct the project.

The project implementation schedule is highly contingent upon funding availability. In the absence of funding shortfalls and other unforeseen delays, the first phase of this project is scheduled to deliver arsenic compliant drinking water to First Mesa by the end of CY2015.

Submitted by:

LT Joshua G. Van Vleet, PE

Project Engineer

Phoenix Area Indian Health Service
Office of Environmental Health & Engineering
Division of Sanitation Facilities Construction
Eastern Arizona District Office

